(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization

International Bureau



I CREAR BANKACH AN CHRAIN BARAN BARAN BARAN BARAN BARAN BARAN BANKA BANKA BANKA BANKA BANKA BARAN CARAN KARAN BA

(43) International Publication Date 15 July 2004 (15.07.2004)

PCT

(10) International Publication Number WO 2004/059365 A1

(51) International Patent Classification7: G02B 26/12, 27/44, 5/18

(21) International Application Number:

PCT/NO2003/000437

(22) International Filing Date:

22 December 2003 (22.12.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

2002 6279

30 December 2002 (30.12.2002) NO

(71) Applicant (for all designated States except US): SIN-VENT AS [NO/NO]; S.P. Andersens vei 5, N-7465 Trondheim (NO).

(72) Inventors; and

- (75) Inventors/Applicants (for US only): SAGBERG, Håkon [NO/NO]; Krokusveien 9, N-0875 Oslo (NO). JO-HANSEN, Ib-Rune [NO/NO]; Svensenga 174, N-0882 Oslo (NO). LØVHAUGEN, Odd [NO/NO]; Rødbråtbakken 3, N-0874 Oslo (NO). SOLGAARD, Olav [NO/US]; 849 Pine Hill Road, Stanford, CA 94305 (US). LACOLLE, Matthieu [FR/NO]; Kongsveien 81, N-1177 Oslo (NO).
- (74) Agent: PROTECTOR IP CONSULTANTS AS; P.O.Box 5074 Majorstuen, N-0301 Oslo (NO).
- (81) Designated States (national): AE, AG, AL, AM, AT (utility model), AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ (utility model), CZ, DE (utility model), DE, DK (utility model), DK, DM, DZ, EC, EE (utility model), EE, EG, ES, FI (utility model), FI, GB,

GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK (utility model), SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD,

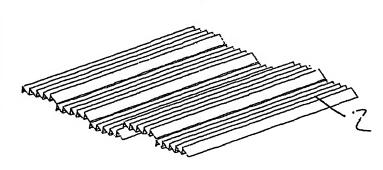
Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: CONFIGURABLE DIFFRACTIVE OPTICAL ELEMENT

gratingArray



(57) Abstract: This invention relates to a configurable diffractive optical element comprising an array of diffractive sub-elements having a reflective surface, wherein each sub-element has a controllable position with a chosen range, and in which a number of sub-elements are provided with a reflective grating with a number of chosen spectral characteristics.

WO 2004/059365 A1